

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2003/0132950 A1

Surucu et al.

Jul. 17, 2003 (43) Pub. Date:

(54) DETECTING, CLASSIFYING, AND INTERPRETING INPUT EVENTS BASED ON STIMULI IN MULTIPLE SENSORY **DOMAINS**

(76) Inventors: Fahri Surucu, Fremont, CA (US); Carlo Tomasi, Palo Alto, CA (US)

> Correspondence Address: FENWICK & WEST LLP SILICON VALLEY CENTER **801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041 (US)**

(21) Appl. No.:

10/187,032

(22) Filed:

Jun. 28, 2002

Related U.S. Application Data

Provisional application No. 60/337,086, filed on Nov. 27, 2001.

Publication Classification

ABSTRACT (57)

Stimuli in two or more sensory domains, such as an auditory domain and a visual domain, are combined in order to improve reliability and accuracy of detected user input. Detected events that occur substantially simultaneously in the multiple domains are deemed to represent the same user action, and if interpretable as a coherent action and provided to the system as interpreted input. The invention is applicable, for example, in a virtual keyboard or virtual controller, where stimuli resulting from user actions are detected, interpreted, and provided as input to a system.

